OIPE JC100
APR 05 2004
PATENT & TRADEMARK OFFICE

FIG. 1a

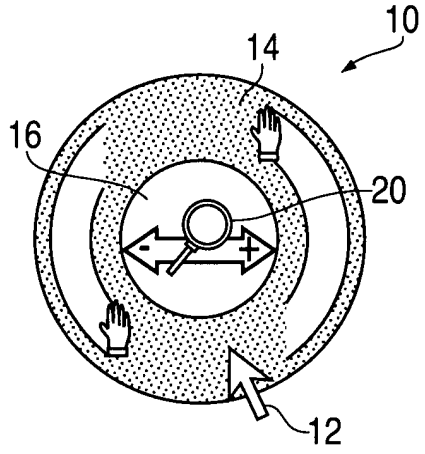

FIG. 1b

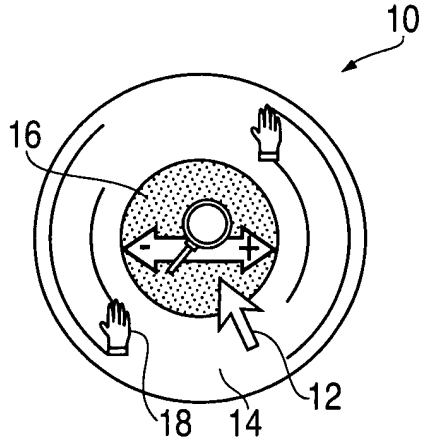

FIG. 2

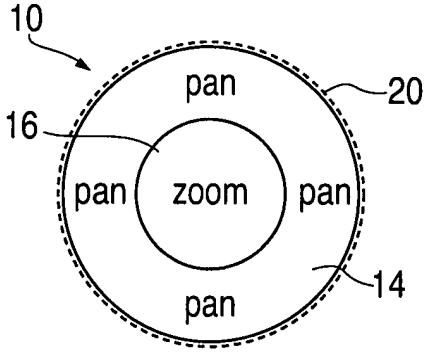

FIG. 3a

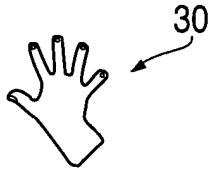

FIG. 3b

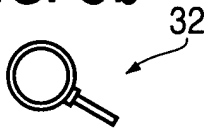

FIG. 4

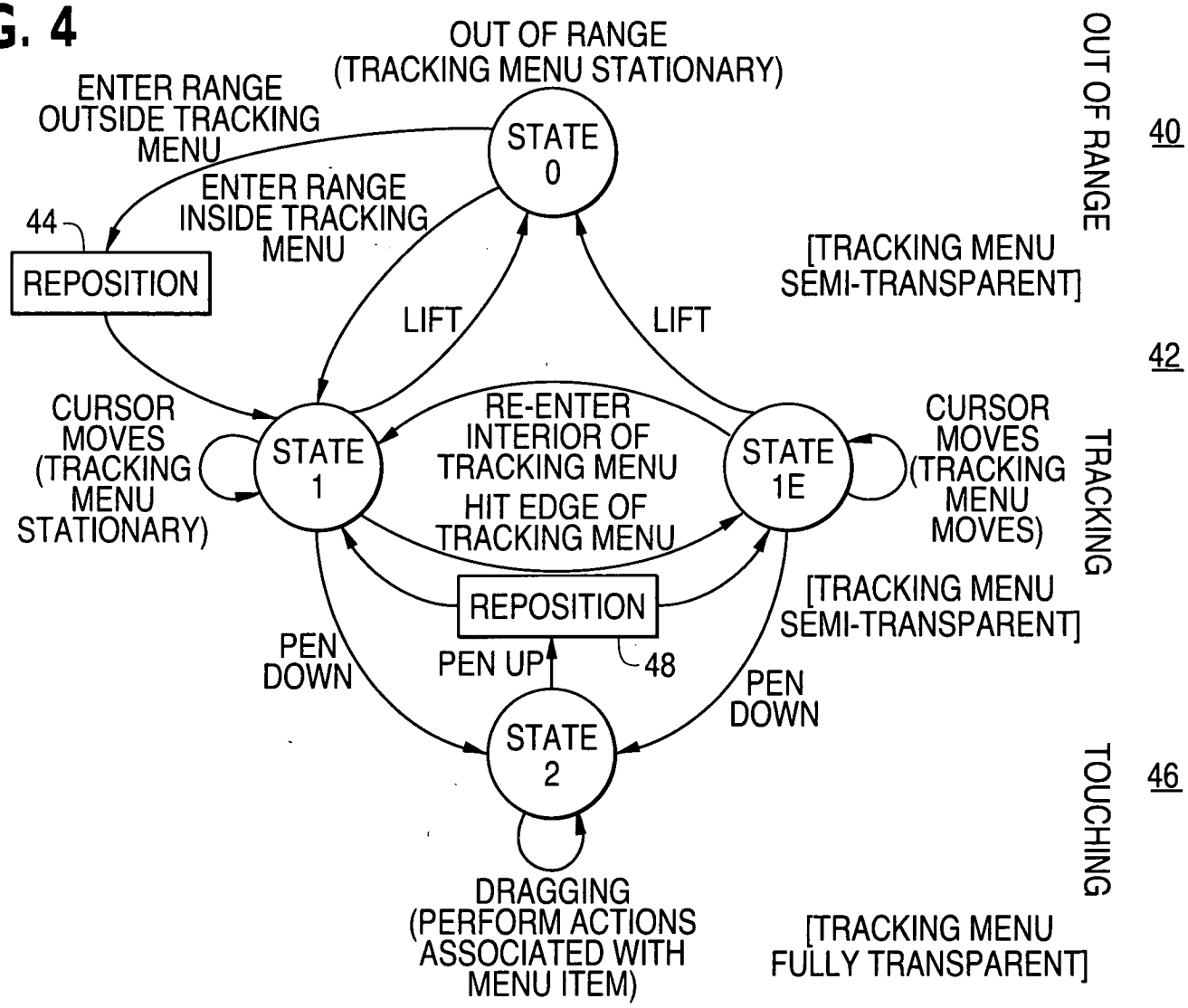
OUT OF RANGE
(TRACKING MENU STATIONARY)
ENTER RANGE
OUTSIDE TRACKING
MENU
STATE
0
ENTER RANGE
INSIDE TRACKING
MENU
44
REPOSITION
LIFT
LIFT
[TRACKING MENU
SEMI-TRANSPARENT]
OUT OF RANGE
40
42
CURSOR
MOVES
(TRACKING
MENU
STATIONARY)
STATE
1
RE-ENTER
INTERIOR OF
TRACKING MENU
HIT EDGE OF
TRACKING MENU
STATE
1E
CURSOR
MOVES
(TRACKING
MENU
MOVES)
TRACKING
[TRACKING MENU
SEMI-TRANSPARENT]
REPOSITION
48
PEN
DOWN
PEN UP
PEN
DOWN
STATE
2
TOUCHING
46
DRAGGING
(PERFORM ACTIONS
ASSOCIATED WITH
MENU ITEM)
[TRACKING MENU
FULLY TRANSPARENT]

FIG. 5b

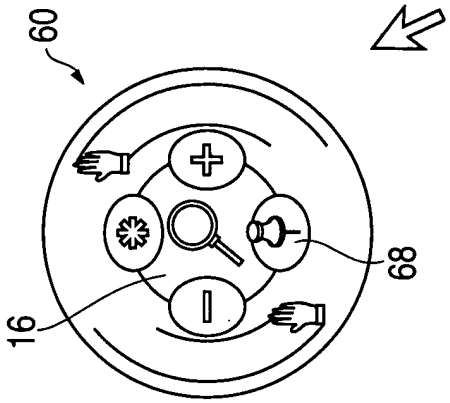

FIG. 5a

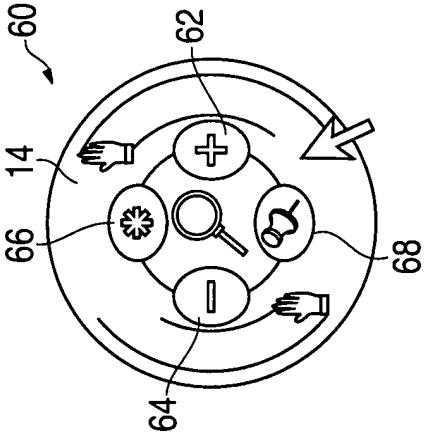

FIG. 6

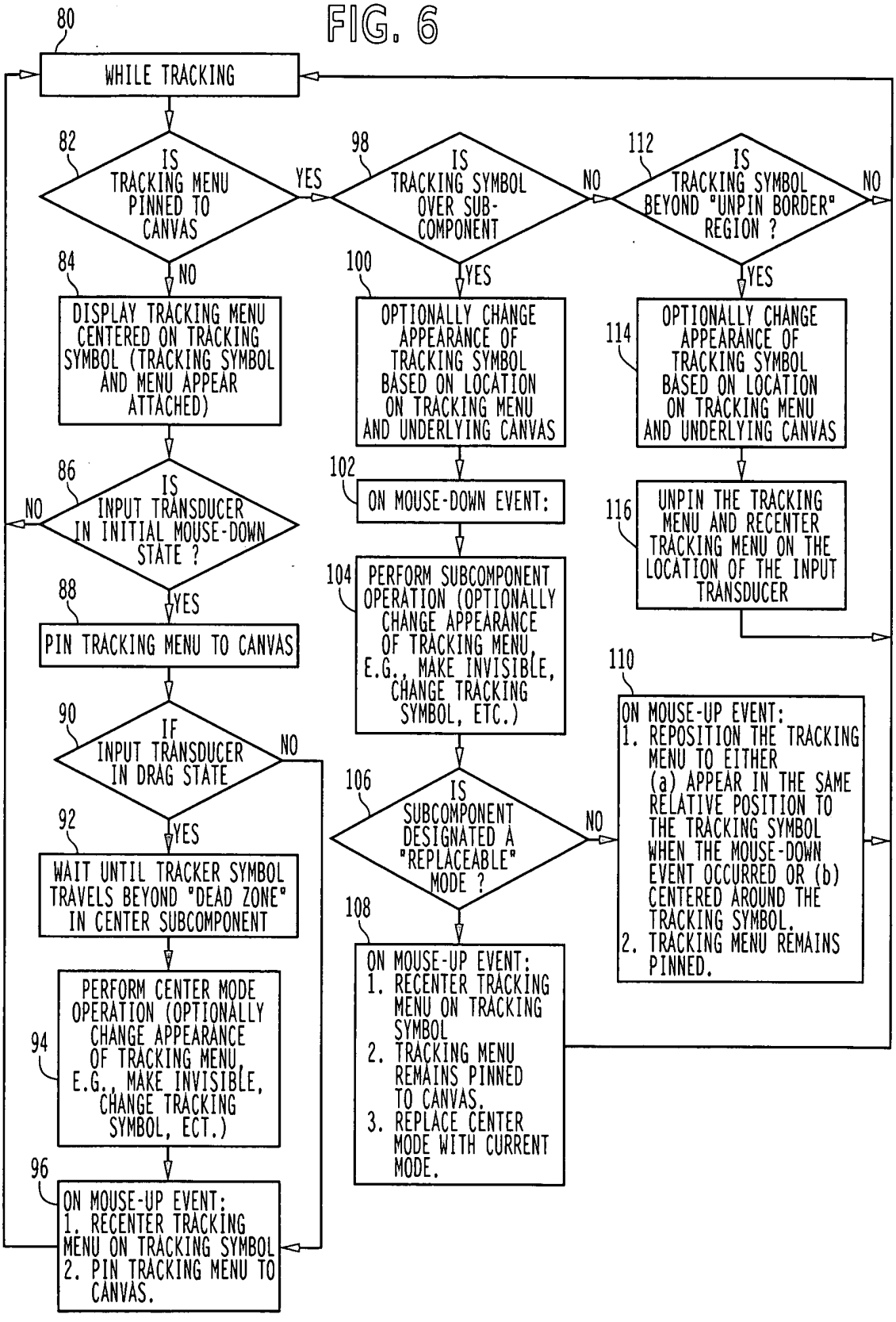
80
WHILE TRACKING
82
IS TRACKING MENU PINNED TO CANVAS
YES
98
IS TRACKING SYMBOL OVER SUB-COMPONENT
NO
112
IS TRACKING SYMBOL BEYOND "UNPIN BORDER" REGION ?
NO
84
NO
DISPLAY TRACKING MENU CENTERED ON TRACKING SYMBOL (TRACKING SYMBOL AND MENU APPEAR ATTACHED)
100
YES
OPTIONALLY CHANGE APPEARANCE OF TRACKING SYMBOL BASED ON LOCATION ON TRACKING MENU AND UNDERLYING CANVAS
YES
114
OPTIONALLY CHANGE APPEARANCE OF TRACKING SYMBOL BASED ON LOCATION ON TRACKING MENU AND UNDERLYING CANVAS
86
IS INPUT TRANSDUCER IN INITIAL MOUSE-DOWN STATE ?
NO
YES
102
ON MOUSE-DOWN EVENT:
116
UNPIN THE TRACKING MENU AND RECENTER TRACKING MENU ON THE LOCATION OF THE INPUT TRANSDUCER
88
PIN TRACKING MENU TO CANVAS
104
PERFORM SUBCOMPONENT OPERATION (OPTIONALLY CHANGE APPEARANCE OF TRACKING MENU, E.G., MAKE INVISIBLE, CHANGE TRACKING SYMBOL, ETC.)
110
ON MOUSE-UP EVENT:
1. REPOSITION THE TRACKING MENU TO EITHER (a) APPEAR IN THE SAME RELATIVE POSITION TO THE TRACKING SYMBOL WHEN THE MOUSE-DOWN EVENT OCCURRED OR (b) CENTERED AROUND THE TRACKING SYMBOL.
2. TRACKING MENU REMAINS PINNED.
90
IF INPUT TRANSDUCER IN DRAG STATE
NO
YES
106
IS SUBCOMPONENT DESIGNATED A "REPLACEABLE" MODE ?
NO
92
WAIT UNTIL TRACKER SYMBOL TRAVELS BEYOND "DEAD ZONE" IN CENTER SUBCOMPONENT
108
ON MOUSE-UP EVENT:
1. RECENTER TRACKING MENU ON TRACKING SYMBOL
2. TRACKING MENU REMAINS PINNED TO CANVAS.
3. REPLACE CENTER MODE WITH CURRENT MODE.
94
PERFORM CENTER MODE OPERATION (OPTIONALLY CHANGE APPEARANCE OF TRACKING MENU, E.G., MAKE INVISIBLE, CHANGE TRACKING SYMBOL, ECT.)
96
ON MOUSE-UP EVENT:
1. RECENTER TRACKING MENU ON TRACKING SYMBOL
2. PIN TRACKING MENU TO CANVAS.

FIG. 7

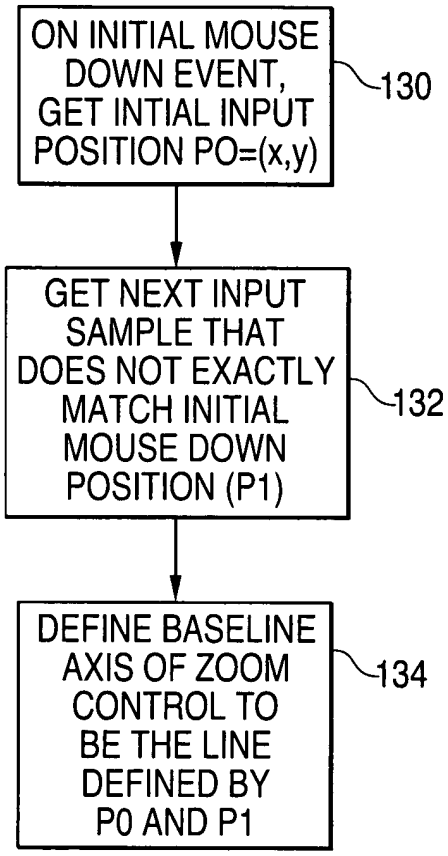
ON INITIAL MOUSE DOWN EVENT, GET INTIAL INPUT POSITION PO=(x,y)
130
GET NEXT INPUT SAMPLE THAT DOES NOT EXACTLY MATCH INITIAL MOUSE DOWN POSITION (P1)
132
DEFINE BASELINE AXIS OF ZOOM CONTROL TO BE THE LINE DEFINED BY P0 AND P1
134

FIG. 8

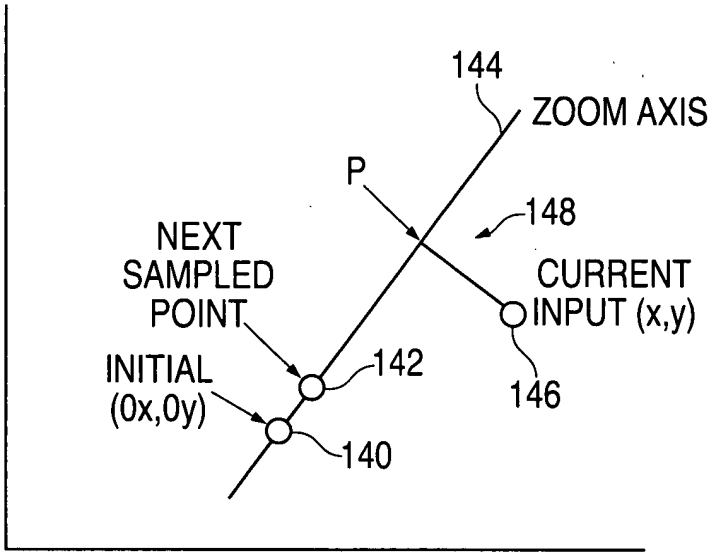
144
ZOOM AXIS
P
148
NEXT
SAMPLED
POINT
CURRENT
INPUT (x,y)
INITIAL
(0x,0y)
142
146
140

FIG. 9

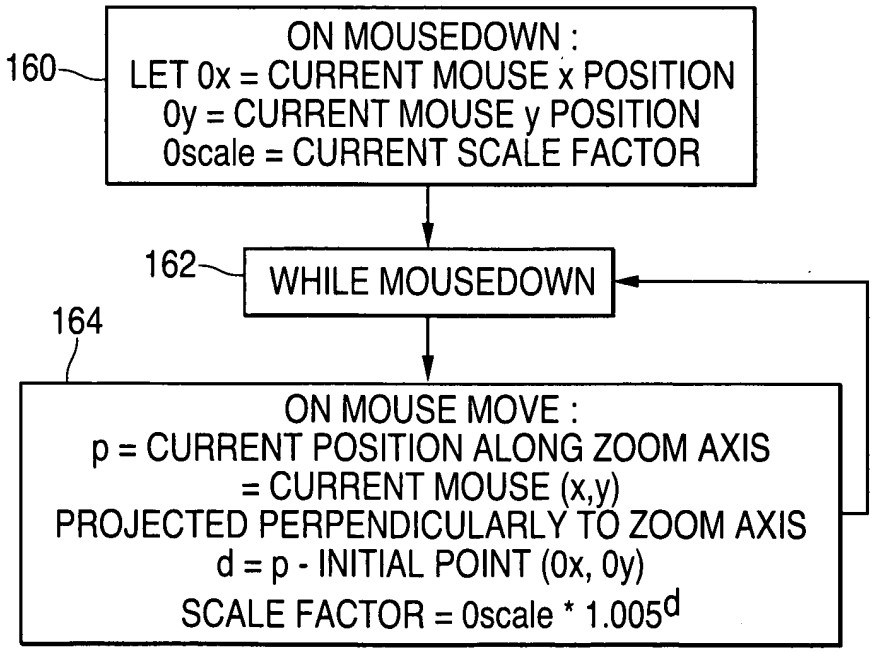
160
ON MOUSEDOWN :
LET 0x = CURRENT MOUSE x POSITION
0y = CURRENT MOUSE y POSITION
0scale = CURRENT SCALE FACTOR
162
WHILE MOUSEDOWN
164
ON MOUSE MOVE :
p = CURRENT POSITION ALONG ZOOM AXIS
= CURRENT MOUSE (x,y)
PROJECTED PERPENDICULARLY TO ZOOM AXIS
d = p - INITIAL POINT (0x, 0y)
SCALE FACTOR = 0scale * 1.005^d

FIG. 10

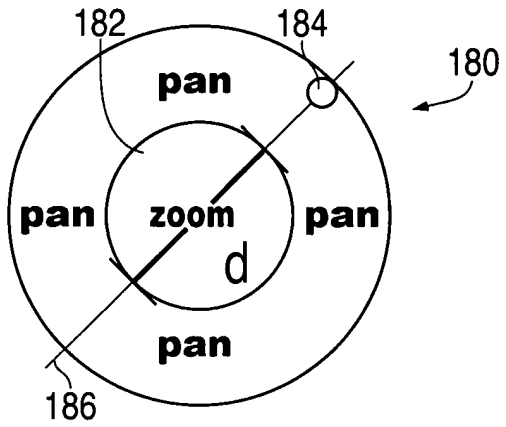

FIG. 11a

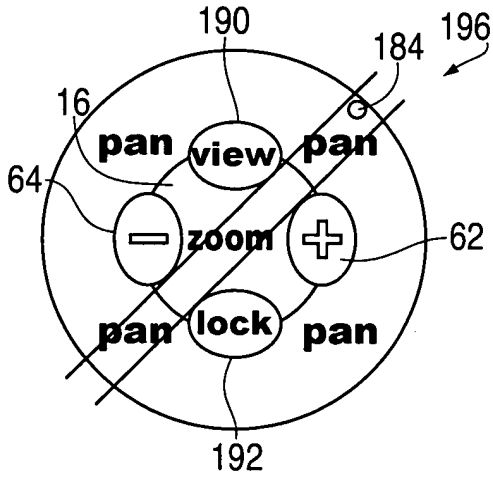

FIG. 11b

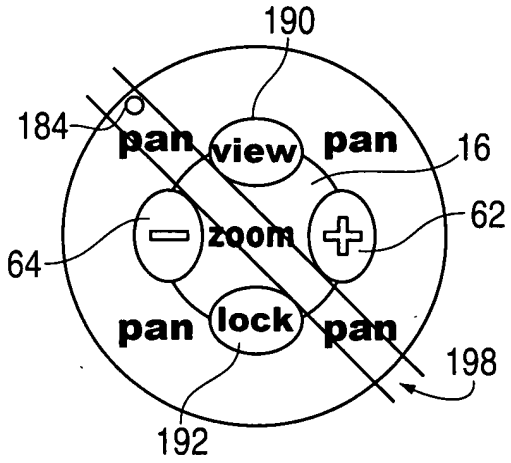

FIG. 12

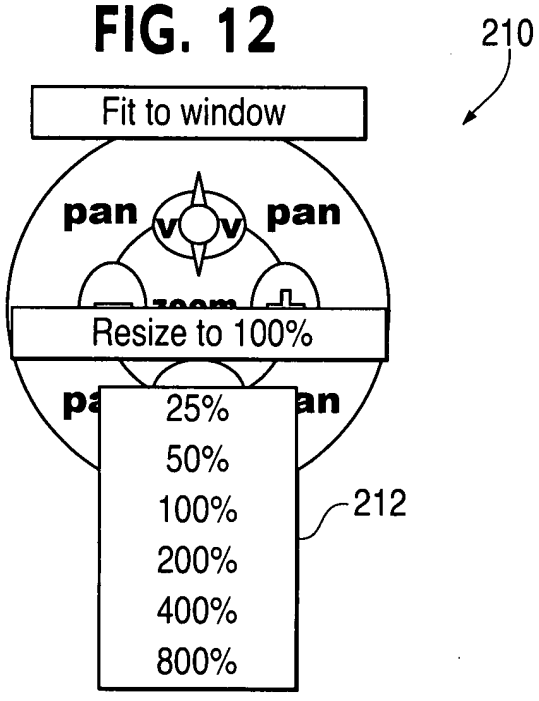
210
Fit to window
pan
pan
Resize to 100%
25%
50%
100%
200%
400%
800%
212

FIG. 13

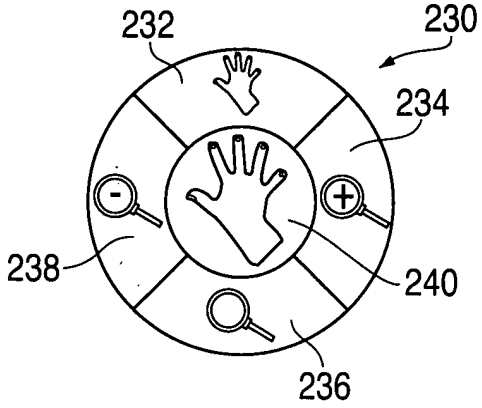

FIG. 14

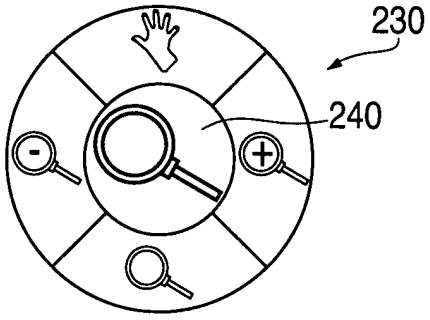

FIG. 15

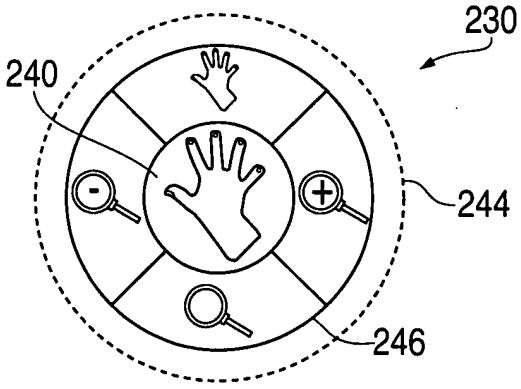

FIG. 16

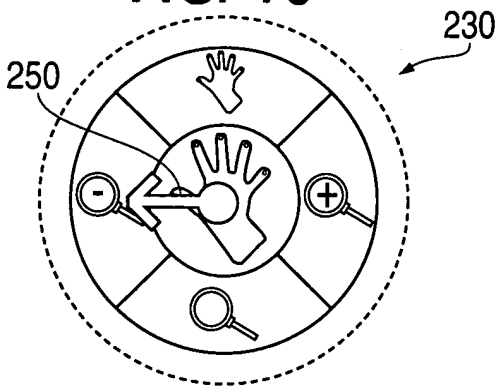

FIG. 17

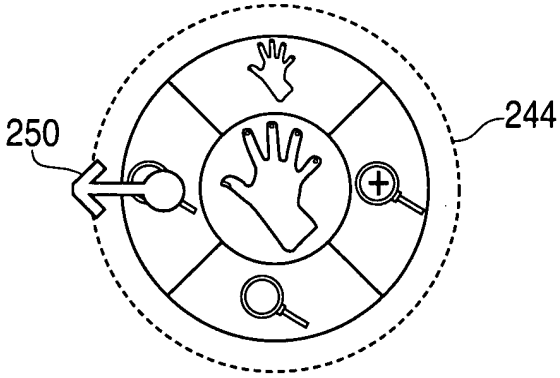

FIG. 18

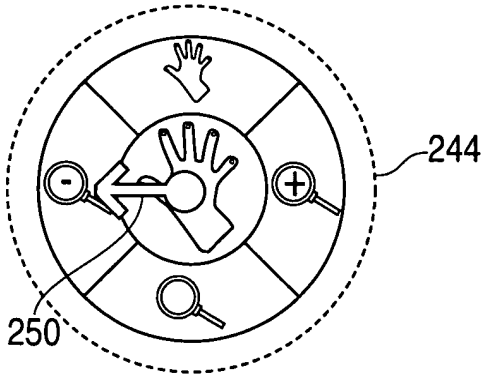

FIG. 19

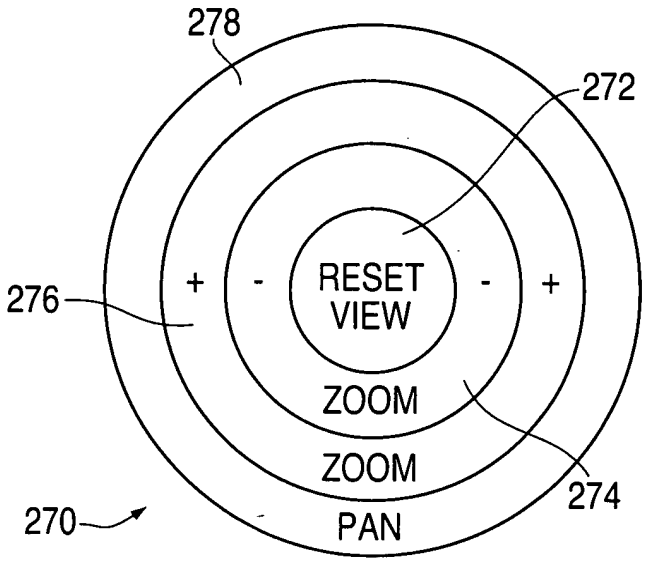

FIG. 20

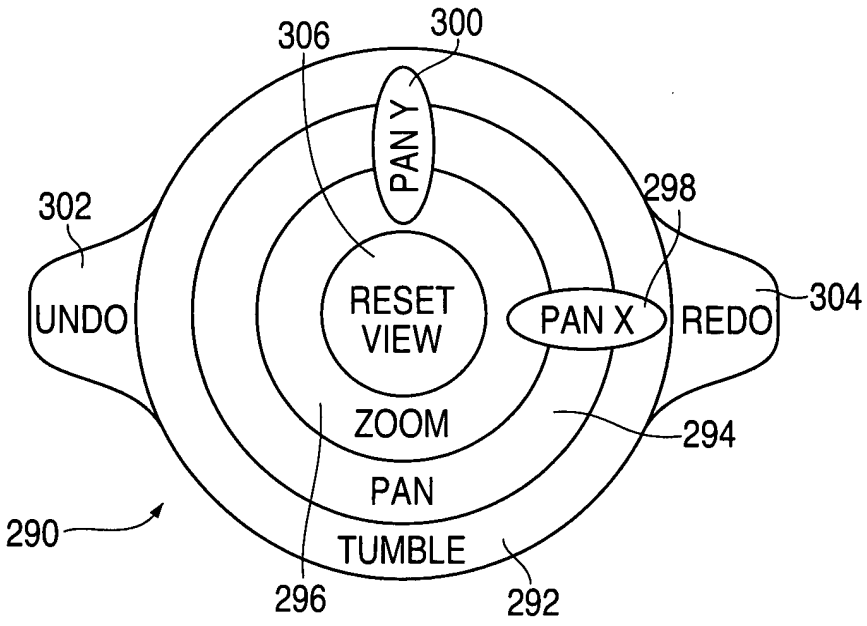
306
300
PAN Y
302
298
UNDO
RESET VIEW
PAN X
REDO
304
ZOOM
294
PAN
290
TUMBLE
296
292

FIG. 21

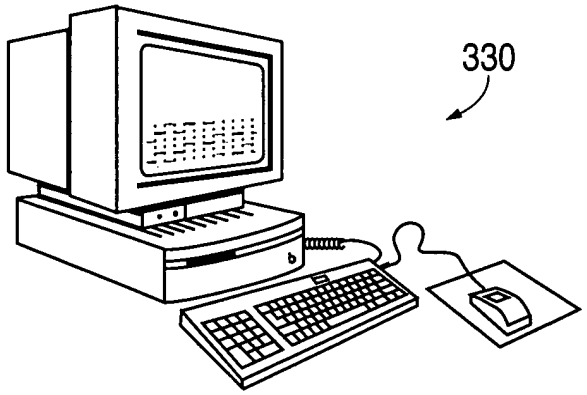

FIG. 22

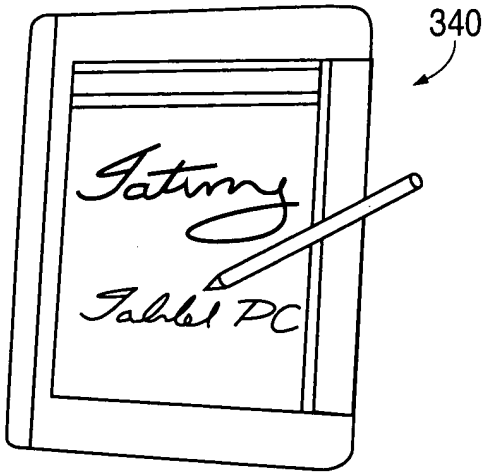
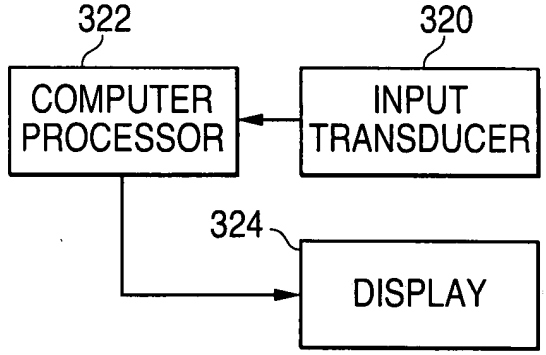
FIG. 23